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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/516,747

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David Baker

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26111

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10/24/2008

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EXAMINER

JUNG, MIN

ART UNIT

PAPER NUMBER

2416

MAIL DATE

DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/516,747	<b>Applicant(s)</b> BAKER ET AL.	
	<b>Examiner</b> Min Jung	<b>Art Unit</b> 2416	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 October 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 31-60 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 50 is/are allowed.
- 6) ☒ Claim(s) 31-49 and 51-60 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 101***

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 34 and 35 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. What is claimed in claims 34 and 35 is "data packet" which is data having a certain format. Data format does not fall in any of the four statutory categories, and therefore is not patentable.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 31-42, 46-48, and 51-60 are rejected under 35 U.S.C. 102(e) as being anticipated by Haynes et al., US 2003/0164794 (Haynes).

Haynes discloses a network and method which utilize impulse radio technology to enable an impulse radio communication link among a plurality of communication

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stations. Note that Haynes teaches that the terminology 'impulse radio' can be generally interchanged with the terminology 'ultra-wideband communication system' [0042].

Regarding claim 31, Haynes teaches an ultra-wideband (UWB) network comprising a plurality of UWB devices each forming a node of the network, pairs of the UWB devices being configured for communication with one another using one of a plurality of UWB channels (Fig. 11), each UWB device (Repeater Unit, RU, 910, 920, 1100) comprising: a UWB transceiver for bidirectional communication over one or more of the UWB channels with at least one other of the UWB devices (impulse radio unit including impulse radio transmitter 602 and impulse radio receiver 702); and a device controller coupled to the UWB transceiver, the controller being configured to determine a UWB channel for use in establishing a communication link with each other UWB device (although there is no specific mention of a controller per se, it is clear that the controller function is included in each RU from the following teaching: each RU builds a dynamic connection table keeping track of which RUs it is in contact with. See [0192]. Therefore, it is inherent that the device controller as recited in the claim is included in Haynes teaching); whereby the network is configured for automatic construction of a set of communications links between the nodes of the network (Dynamic Connection Table [0191] - [0193]).

Regarding claim 32, Haynes further teaches that the UWB transceiver of each UWB device is configured for bidirectional communication with a plurality of other UWB devices over a plurality of the channels, and wherein the device controller of each UWB device is further configured to store connection data associating a first of the channels

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bearing incoming data with a second of the channels for use in forwarding the incoming data to another of the UWB devices (see the exemplary network example described at paragraphs [0191]-[0193], Each RU builds connection table and repeats connection table to a neighboring node using a second channel).

Regarding claim 33, the discussion of Haynes as applied above for claims 31 and 32 also apply here for claim 33. Specifically in Haynes, the Repeater Unit, RU, builds the connection table, repeats it to a neighboring node using a different channel than the channel for incoming data.

Regarding claim 34 and 35, Haynes teaches a plurality of UWB channels ([0089]), and data packet including payload data and UWB channel identification data and destination identification data (it is inherent that a data packet includes overhead and payload. Haynes teaches sending a packet from node A to node X, and referring to dynamic connection table routing the packet. It is specifically taught that the packet is routed from link to link, along the direction of the destination [0208]).

Regarding claim 36, Haynes further shows that RU 1100 communicating over two UWB channels (channels used to carry impulse radio signals) with two UWB devices (RUs) (as shown in Fig. 11).

Regarding claim 37, Haynes teaches UWB transceiver broadcasting a connection request to request a connection to UWB devices, to receive a connection response from the selected UWB device, and to determine a UWB channel to employ for communicating with the selected UWB device responsive to the connection

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response (broadcasts the agent, and then reverses the direction of the agent at node A and update the connection table [0206]).

Regarding claims 38-42, and 46-48, the detailed limitations are all within the teachings of Haynes. Node B uses the returned data to update the connection table, therefore, the channel determined would only concern the channel from which the connection response was received [0206]. Haynes teaches connection table (throughout the specification), indirect communication via an intermediary UWB device (shown in Fig. 1), and comparing the quality data for the connection request and to respond to selected request responsive to the comparison ([0215]).

Regarding claims 51-60, above analysis of Haynes apply to this group of claims.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 43-45 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haynes.

Regarding claims 43-45, Haynes, as applied above, fails to specifically teach replying with a connection disconnect message, broadcasting an alert to one or more UWB devices on initiation of the UWB device, and modifying the device identifier responsive to the alert. However, these limitations are directed to specific

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implementation aspect of the main concept in the present invention, and are the kinds of details that are used commonly in the filed of the invention. Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to utilize the recited details in implementing the teachings of Haynes to aid in making a working system.

Regarding claim 49, Haynes teaches all the concept recited as applied above except for the specific teaching of implementing the method using a computer program code as recited. However, it is well known in the filed of the invention to encode a method as a program code and implement the method by reading the program code and using a processor. Therefore it would have been obvious for one of ordinary skill in the art at the time of the invention to utilize the well known scheme of encoding the method as a computer program since computer based devices are commonly used in communication field.

### ***Allowable Subject Matter***

7. Claim 50 is allowed.

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The Lakkis PG Pubs., the Evans et al. patent, the Davis et al. PG Pub., the Dacosta PG Pub., the Fullerton et al. patent, the Santhoff et al. patent, the Wood patent, and the Elliott et al. patent are cited for further references.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Min Jung whose telephone number is 571-272-3127.

The examiner can normally be reached on Monday through Friday 9:00 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on 571-272-7872. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Min Jung/  
Primary Examiner, Art Unit 2416